


UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT-EASTERN STATES  
Northeastern States Field Office  
626 E. Wisconsin Avenue, Suite 200  
Milwaukee, Wisconsin 53202-4617

In Reply Refer to:  
3120(03410)  
NEPA #DOI-ES-030-2013-0008-ROD  
EOI #010/MIES 38349

DEC 17 2012

Memorandum

To: Eastern States, State Director (ES-930)

From: Field Manager 

Subject: Recommendation to Lease Lands in the Huron-Manistee National Forests, Newaygo County, Michigan

In a letter to the State Director dated November 16, 2012, the Forest Service authorized the Bureau of Land Management (BLM) to offer a lease for the 75% U.S. oil and gas interest in 440 acres of the Huron-Manistee National Forests (HMNF) in Newaygo County, Michigan. The authorization letter addresses Expression of Interest (EOI) 010, which is pre-sale lease offer MIES 38349. The 440 acres is configured as one lease parcel.

The Forest Service made the availability decision for oil and gas leasing on the HMNF in their March 2006 Record of Decision (ROD) for the HMNF Land and Resource Management Plan (LRMP) and its associated Final Environmental Impact Statement (EIS). The Forest Service has verified that the EIS adequately analyzed leasing of these lands and that leasing is consistent with the LRMP. The Forest Service determined that no new information or circumstances arose that would require additional environmental analysis prior to authorizing leasing.

In response to Northeastern States Field Office's (NSFO) request, the HMNF granted the BLM cooperating agency status for preparation of the LRMP EIS that resulted in the March 2006 ROD. Copies of the correspondence regarding cooperating agency status are attached. As a cooperating agency, the BLM can use the LRMP EIS in agency decision-making regarding leasing, as set forth in the National Environmental Policy Act (NEPA) implementing regulations at 40 CFR 5106.3 (Adoption).

The NSFO has prepared a ROD that addresses the BLM's decision to offer the 440-acre parcel for competitive lease. I am attaching two copies of the ROD for the Deputy State Director's, Division of Natural Resources, signature. I recommend that this ROD be approved, and the lands be offered for lease, subject to BLM standard lease terms, the Forest Service Standard Lease Stipulations for the HMNF, and Forest Service Lease Stipulations and Lease Notices identified in the authorization letter. The Forest Service stipulations, notices, and lease parcel map must be attached to the issued lease in order to satisfy the Forest Service's authorization conditions and carry out the intent of the ROD.

Please return one signed copy of the attached ROD to the NSFO for our records. If you have questions regarding this memorandum, please contact Becky Metz at (414) 297-4425 or by e-mail at [bmetz@blm.gov](mailto:bmetz@blm.gov).



United States  
Department of  
Agriculture

Forest  
Service

Huron-Manistee National Forests

1755 South Mitchell St.  
Cadillac, MI 49601  
231-775-2421 (voice)  
231-775-5551 (fax)  
231-775-3183 (TTY)

File Code: 1920-2

Date: February 7, 2003

Ruth L. Welch  
Acting Field Office Manager  
USDI-Bureau of Land Management  
Milwaukee Field Office  
PO Box 631  
Milwaukee, WI 53201


Dear Ms. Welch:

Thank you for requesting cooperating agency status during the development of the Huron-Manistee National Forests' Forest Plan revision effort. This memo serves as notification that I have officially granted you Cooperating Agency Status.

Terry Saarela, Minerals Program Manager, (213) 775-5023 ext 8733, will serve as your primary contact. Terry will be contacting you to set up a conference call to discuss Forest Plan revision oil and gas opportunities and issues.

Looking forward to working with you to revise the Forests' Forest Plan,

Sincerely,



JAMES L. SCHULER  
Forest Supervisor

cc: Forest Planners HM  
Ottawa NF Forest Supervisor  
Hiawatha NF Forest Supervisor  
RO Planning Team



White  
Yellow  
Green  
Pink

3120 (030)

24 DEC 2002

Mr. James DiMaio  
Forest Planner  
Huron-Manistee National Forests  
1755 South Mitchell St.  
Cadillac, Michigan 49601

Dear Mr. DiMaio:

This Office has been advised that efforts have begun to revise the Huron-Manistee National Forest Plan. The Bureau of Land Management (BLM) is hereby requesting cooperator status with the Forest Service in the development of that Plan's revision.

As the principal leasing agent for Federal minerals in the east, BLM feels that several concerns should be addressed in any plan revision made for the Huron-Manistee National Forests and we are willing to offer the expertise needed to address these concerns.

Currently, the decision making process for oil and gas leasing and subsequent oil and gas operations on the Huron-Manistee National Forests involves three levels of NEPA analysis and related decision documents (i.e., availability, consent, and site-specific decisions). We recommend that the Forest Plan be revised in a manner that would allow streamlining of the analytical and decision-making process for oil and leasing and site-specific operations. One possible approach to streamlining would be to prepare a NEPA analysis that could support a Forest-wide consent decision for leasing.

Our understanding of Forest Service Planning Guidance has led us to believe that current guidance requires a Forest-wide reasonable foreseeable development scenario be developed which would forecast rational expectations regarding demand for mineral exploration and development within the boundaries of a Forest. The existing plan does not have such an analysis, and we can offer the expertise of our minerals staff to provide input for the analysis. Such an analysis would foster rapid leasing decisions and provide the Forest Service with a better estimate of the demand for mineral exploration and development likely to occur on Forest Service and adjoining non-Federal lands.

Finally, for the Forest Plan revision, we recommend that the impact analysis be expanded to address oil and gas exploration and development on all Federal oil and gas mineral estate including both leased and unleased acreage and acreage due for reversion or acquisition within the planning horizon of the revised plan.

The other natural resource concern that we have concerns six prospecting permit applications for Manistee National Forest submitted to the BLM in 1993. These applications serial numbers are MIES46005, MIES46006, MIES46007, MIES46030, MIES46031, and MIES46032. The applications are for solution mining of potash in Mason and Oceana Counties. To date, the Forest Service has not acted upon these applications. The Forest Plan revision should address the possibility of potash solution mining in a manner that does not preclude possible action on these permits before a final revised plan is in place.

We request that the BLM be granted cooperating agency status for the NEPA analysis related to the Forest Plan revision. At your request, BLM could provide technical expertise and data related to Federally owned minerals, review and revision of the Oil and Gas Potential Analysis, lease issuance and administration, and oil and gas operations and inspection. If you have questions about this letter, please contact Dave Lachance at 414-207-4145 or [Dave\\_LaChance@es.blm.gov](mailto:Dave_LaChance@es.blm.gov).

Sincerely,

(ORG.SGD.) RUTH L. WELCH

Ruth L. Welch  
Acting Field Office Manager

Memorandum

Date: December 10, 2012

To: EOI 010/MIES 38349 NEPA File

From: Rebecca W. Metz, Physical Scientist, Div. of Mineral Resources, Northeastern States Field Office

Subject: Review of Surface Restrictions on Lease Parcel Requested in EOI 010/MIES 38349

In a letter dated November 16, 2012, the Forest Service authorized the Bureau of Land Management (BLM) to offer a competitive lease for the 75% U.S. oil and gas interest in 440 acres of land in the Huron-Manistee National Forests, Newaygo County, Michigan. This land was requested in Expression of Interest (EOI) 010 (pre-sale lease offer MIES 38349) and is described as follows:

T 16 N, R 13 W, Michigan Meridian  
Section 17: N1/2SW, SWSW, NWSE, N1/2NE, SWNE, NW

The 440 acres is configured as one parcel that is tentatively scheduled to be offered at the June 20, 2013, oil and gas lease sale. Forest Service conveyed the original authorization package to the State Director with a copy to the Northeastern States Field Office (NSFO). A copy of the consent package is attached to the Record of Decision (ROD) NSFO prepared for the BLM's decision to offer the lease.

I have reviewed the surface use restrictions resulting from the Forest Service Lease Stipulations and Lease Notices for the parcel, in conjunction with various maps and other sources of information regarding Section 17 and adjacent lands. The purpose of this review is to insure that there is a potential surface location on the lease for a vertical or directional well and/or on adjacent lands for a directional well into the lease.

I have attached three lists of information compiled from this review and a set of maps/imagery. Attachment 1 is my review of the Forest Service Lease Parcel Map, Forest Service Lease Notices and Lease Stipulations, and pertinent sections of Forest Plan Chapters II and III. Attachment 2 is my review of the Michigan DNR online lease/well map, online DEQ drilling unit map, LR2000, and AFMSS. Attachment 3 is my review of Google Earth, U.S. Fish and Wildlife wetland maps, the Forest Service Lease Parcel Map, the Forest Service Title and Encumbrance map, and Forest Service's April 13, 2012, Authorization Package for MIES 37331 through 37333 and MIES 35235. Attachment 4 includes the Forest Service Title and Encumbrance Plat map, the Forest Service Lease Parcel map, the Google Earth imagery covering Section 17 and vicinity, the DNR State mineral and lease map, the DEQ drilling unit map, and the U.S. Fish and Wildlife Wetlands Inventory map for Section 17 and vicinity.

I have concluded that there is potential for at least one surface location on the lease and multiple surface locations on adjacent lands, as follows:

1. There is potential for one surface location on the lease in the E1/2SESWSE (5 acres), with access from Jerome Drive.
2. There is potential for surface locations on the following adjacent lands for directional drilling into the lease:
  - A. Private land in Section 16 east of the NENE of Section 17, with access from Baldwin Avenue.
  - B. Private land in Section 8 north of the NENE of Section 17, with access from West 16 Mile Road or Baldwin Drive.
  - C. Forest Service land in Section 8 north of the NWNE and N1/2NW of Section 17, with access from West 16 Mile Road. The surface location would be limited by restrictions for protection of the Karner Blue Butterfly.
  - D. Private land northwest of the parcel in the SESE of Section 7, with access from West 16 Mile Road.
  - E. Forest Service land in the NWNW of Section 20 may be accessible by trail road. The surface location would be affected by the 1 surface location per 160 acre restriction.
  - F. Forest Service land southeasterly of the lease, with access from Jerome Drive. The surface location would be affected by the 1 surface location per 160 acre restriction.

Depending on the geologic target(s) and associated spacing requirements, the lease could be developed by:

- A. Inclusion of all, or part, of the lease in the drilling unit of a well to be drilled on adjacent property. A Communitization Agreement would be formed and the lease could be held by allocated production from the well.
- B. Inclusion of the lease in a Unit Agreement that involves other leases in the area. The lease could be held by allocated production from producing wells in the Unit.

*Rebecca W. Metz*

## ATTACHMENT 1

### Review of the Forest Service Lease Parcel Map, Forest Service Lease Notices and Lease Stipulations, Forest Plan Chapters II and III sections:

1. All of Section 17 is classified Management Area (MA) 6.2, i.e., Semi-primitive Motorized.
2. All of Section 17 is covered with old growth.
3. MA Direction for MA 6.2 states: "Federal oil and gas leases will contain a controlled surface use stipulation with a maximum surface development density of 1 surface location per 160 acres." (Forest Plan Chapter III, Page III-6.2-7). Lease Stipulation #22 in the Forest Service's authorization package for EOI 010 addresses this. The lease parcel map displays this.
4. Forest-wide MA Direction for old growth states: "For lands nominated for oil and gas leasing in old growth, the surface versus no-surface-occupancy decision will be made for each parcel prior to consenting to lease. The surface-occupancy determination will be based on the presence of reasonable access within old growth areas." (Forest Plan Chapter II, Page II-36). Lease Stipulations #3 and #4 in the Forest Service's authorization package for EOI 010 address this. The lease parcel map displays this.
5. The majority of old growth in Section 17 is designated No Surface Occupancy (NSO).
6. The remainder of the old growth allows surface occupancy, subject to the 1 surface location per 160 acres restriction that is a Forest Plan Guideline for MA 6.2 lands.
7. On the lease parcel, the E1/2SENWSE (5 acres) is the only area open for surface occupancy. This area is subject to the 1 surface location per 160 acres restriction.
8. Noted: The term "1 well per 160 acres" is used in the lease parcel map legend. In the Forest Plan and in Lease Stipulation #22, the term used is "1 surface location per 160 acres".

## ATTACHMENT 2

### Review of Michigan DNR online lease/well map, DEQ online drilling unit map, LR2000, and AFMSS:

1. There are no authorized Federal oil and gas leases in Section 17 or in adjacent sections.
2. The following adjacent or nearby lands in Sections 7, 8, and 9 are included in pending grandfathered oil and gas lease applications:
  - A. Section 7: SWSE (MIES 35235)
  - B. Section 8: SENE, W1/2NE, S1/2NW, SW (MIES 35235)
  - C. Section 8: W1/2SE (MIES 37331, MIES 37332, MIES 3733)
  - D. Section 9: W1/2 (MIES 35235)
3. There are no State oil and gas leases in Section 17 or adjacent sections
4. There are no oil and gas wells of any type in Section 17 or adjacent sections.
5. The 440-acre parcel was previously leased as MIES 30342, which was in effect from 07/01/1985 to 07/01/1986. No oil and gas development occurred on the lease.
6. The closest pending operations on a Federal lease are a Notice of Staking (NOS) for the USA Merrill C 1-17 and a pending Application for Permit to Drill (APD) for the USA Merrill 1-18 on Federal lease MIES 55479 in T 15 N, R 13 W, Sections 17 and 18, Newaygo County. These locations are 5 to 6 miles south of the lease parcel. Assuming the APD is approved, the oil and gas operator would re-enter the plugged and abandoned (P+A) USA Merrill 1-18 well to test for Antrim production at a depth of around 2,600 feet. The outcome of drilling the USA Merrill 1-18 would determine whether the operator files an APD for the USA Merrill C 1-17. To date, there are no Antrim wells in Newaygo County.



### ATTACHMENT 3

Review of Google Earth, U.S. Fish and Wildlife Wetland Maps, Forest Service Lease Parcel Map, Forest Service Title/Encumbrance Plat map, and Forest Service's April 13, 2012 Authorization Package for MIES 37331 through 37333 and MIES 35235:

1. The lease parcel is forested, has several large wetland areas, and at least one pond. In the NENE there is a feature that is either a wetland or lake, depending on the source map consulted. On Google Earth it appears to be a dried-up lake. The wetlands/lake and pond are in the NSO areas of the lease parcel.
2. The following roads are associated with the lease parcel. All road names are from Google Earth:
  - A. Baldwin Avenue runs along the east edge of the lease parcel in the NENE Section 17.
  - B. West 16 Mile Road runs along the entire north boundary of Section 17 which is the north edge of the lease parcel.
  - C. Jerome Drive passes through the lease in the E1/2SE1/4 (5 acres) of Section 17, which is the only area of the lease parcel where surface occupancy is allowed.
  - D. Roosevelt Drive runs northwest from Jerome Drive into the north half of the lease parcel, all of which is NSO.
3. Land east of Baldwin Avenue is privately owned. Houseman Lake Drive runs east from Baldwin Avenue into the private tract. Surface occupancy for drilling of a directional well might be allowed on this land. Access would be from Baldwin Avenue and Houseman Lake Drive.
4. On the north side of West 16 Mile Road, the SW1/4 and W1/2SE1/4 of Section 8 is Forest Service land in MA 4.3 (Roaded Natural Wetlands) and the E1/2SE of Section 8 is private land.
5. The SW1/4 and W1/2SE1/4 of Section 8 is designated Karner Blue Butterfly (KBB)/wildlife emphasis. Surface occupancy is permitted, but operations are subject to additional restrictions for protection of the KBB. Surface occupancy for drilling of a directional well might be allowed on this land. Access would be from West 16 Mile Road.
6. Baldwin Drive runs from West 16 Mile Road through the private land in the E1/2SE of Section 8. Surface occupancy for drilling of a directional well might be allowed on this land. Access would be from West 16 Mile Road or Baldwin Drive.
7. Private land is immediately northwest of the lease parcel in the SESE of Section 7. Surface occupancy for drilling of a directional well might be allowed on this land. Access would be from West 16 Mile Road.
8. Jerome Drive passes through the E1/2SE1/4 (5 acres) in the lease parcel. Surface occupancy is permitted subject to the 1 surface location per 160 acres restriction. It might be possible to locate a well on this tract depending on the depth of the well (deeper wells require a larger well pad than shallow wells). Access would be from Jerome Drive.
9. Section 18 lands immediately west of the lease parcel are Forest Service lands in MA 6.2 and are all old growth, most of which is subject to NSO, with several areas open to occupancy subject to the 1 surface location per 160 acres restriction. These lands do not have any obvious road access.
10. Section 20 lands immediately south of the lease parcel are Forest Service lands in MA 6.2 and are mostly old growth, half of which is NSO, the other half of which allows for surface occupancy subject to the 1 surface location per 160 acres requirement. There may be a trail road running into in this area.

11. Lands adjacent to the remaining edges of the lease parcel in Section 17 are all classified MA 6.2 and have old growth. The majority of this land is open for surface occupancy subject to the 1 surface location per 160 acres restriction. Jerome Drive passes through parts of the lands. It might be possible to access a well location off Jerome Drive for the purpose of directional drilling into the lease parcel.

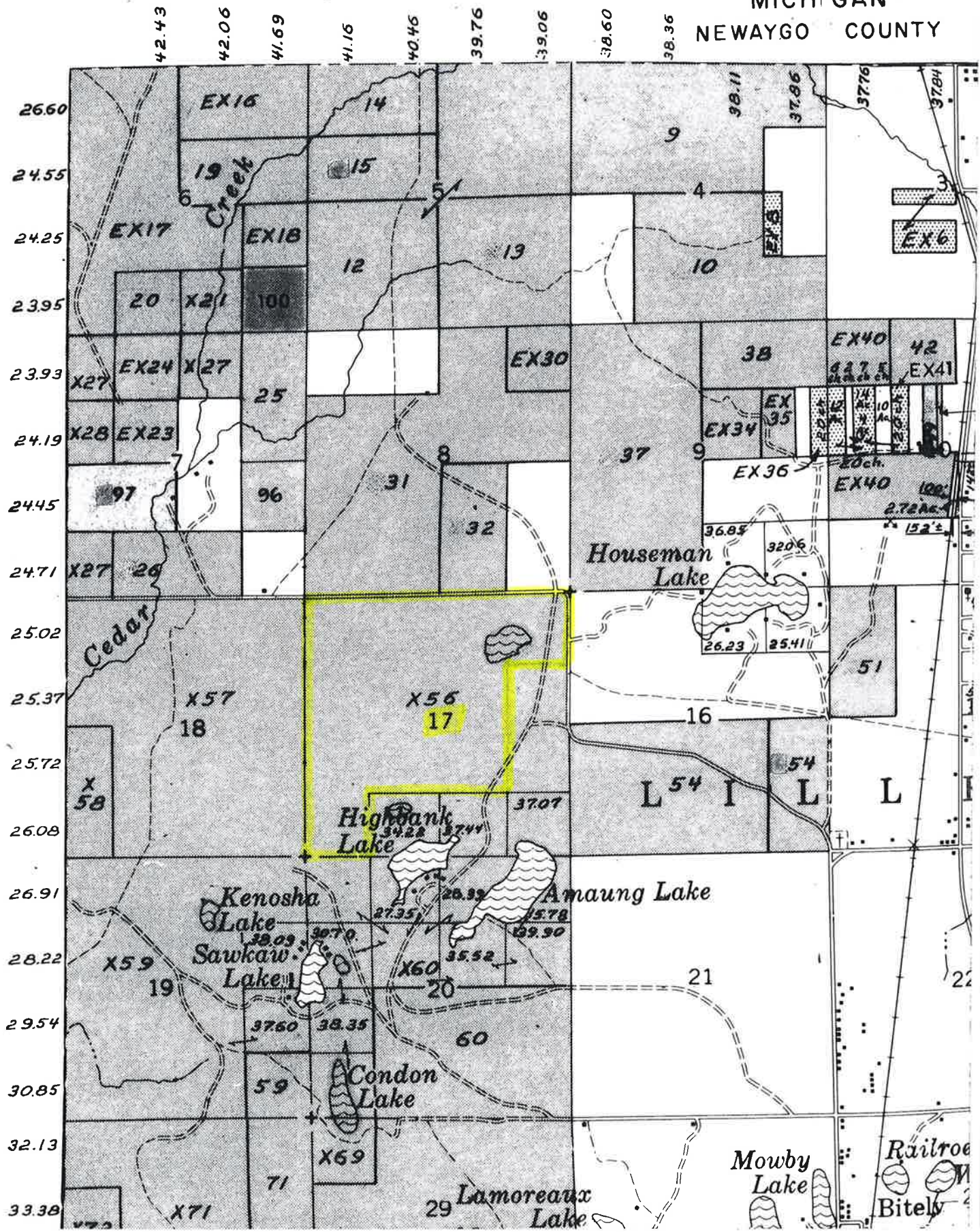


# MANISTEE NATIONAL FOREST

T. 16 N., R. 13 W., Mich. N

MICHIGAN

NEWAYGO COUNTY





# TITLE & ENCUMBRANCE MAP

## MANISTEE NATIONAL FOREST

T. 16 N., R. 13 W.

MICHIGAN MERIDIAN

BALDWIN

RANGER DISTRICT

NEWAYGO

COUNTY

LILLEY

TOWNSHIP

### MAP SYMBOLS

	National Forest boundary		Hard surfaced road
	Purchase Unit boundary		Stabilized, graded, and drained road
	County boundary		Improved and maintained dirt road
	Political Township boundary		Unimproved dirt road
	Ranger District boundary		Route Numbers
	Tract boundary		U.S., State or Co., F.S.
	Monumented corner		Abandoned logging road or other man way
	Railroad		Telephone line
	Double-track railroad		Powerline
	Abandoned railroad grade		Pipeline
			Drainage

### OWNERSHIP

	Weeks Law - F. S. Administered - U. S.
	Public Domain - F. S. Administered - U. S.
	Other Status - F. S. Administered - U. S.
	Released by Exchange, etc.
	Other Federal
	Non Federal
15	Tabular Record Form Line Number

### METHOD OF ACQUISITION

R-	Reserved from Public Domain
	(Symbol shown only where stippling is not obvious)
P-	Acquired by Purchase
	(Symbol not shown for Weeks Law purchase cases.)
E-	Exchange
D-	Donation
T-	Transfer

### ENCUMBRANCES

- x- Minerals Outstanding  
\*- Expansion provided

### EASEMENTS

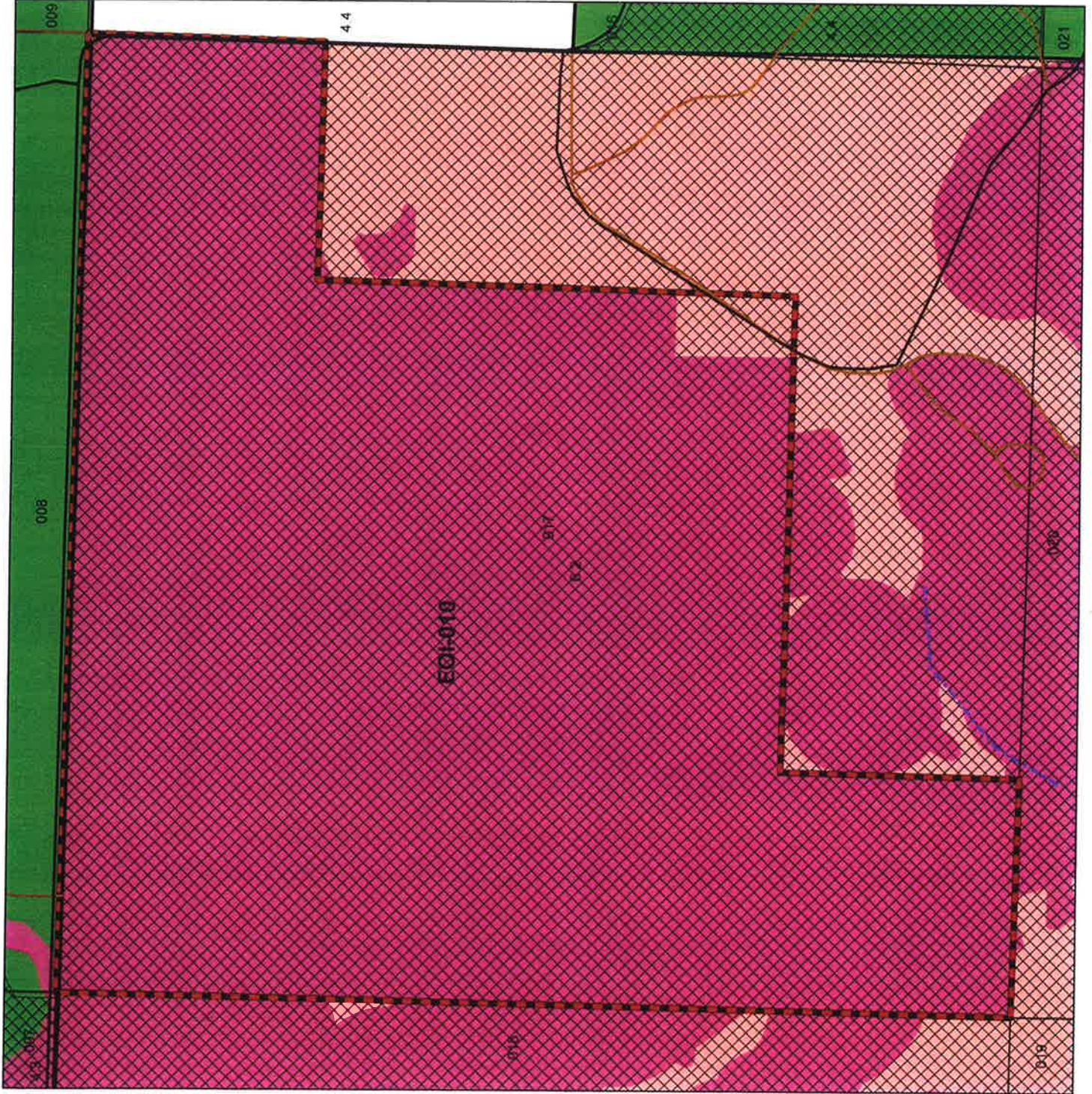
OF RECORD 3rd PARTY	TO/FROM U.S.F.S	TYPE
	See Road right-of-way Atlas	Highway or Road
		Railroad
		Pipeline
		Powerline
		Telephone or Telegraph



# EOI-010

Manistee N.F.  
Newaygo County

- Other Roads
- USFS Roads
- North Country Trail
- Management Areas
- EOI-010
- Forest Boundary
- Oldgrowth
- Not Available
- No Surface Occupancy
- KBB / Wildlife Emphasis
- 1 well per 160 acres
- 1 well per 640 acres
- USFS Ownership





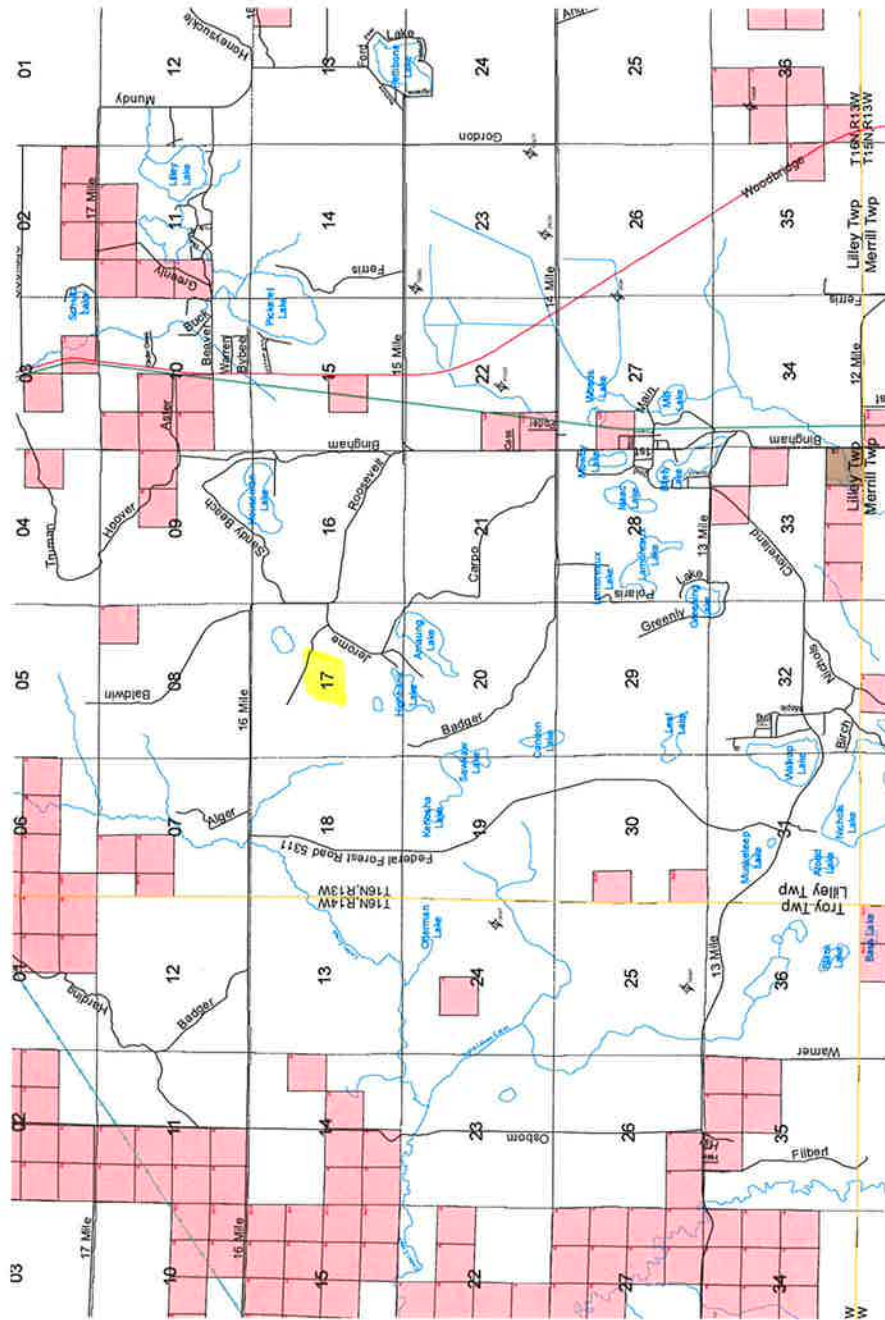


Imagery Date: 12/31/2004

43°46'39.00" N / 85°53'21.56" W elev: 909 ft

© 2012 Google

Eye alt: 7762 ft



13N

Plugged Wells  
/ Plugged Wells

DNR Ownership

- Surface
- Mineral and Surface
- Minerals
- Mixed Ownership
- Other Rights

Transportation Political

- Highway
- Paved
- Gravel
- Poor Dirt
- Railroads
- County Line
- Townships
- Sections
- Utility Lines
- Pipeline
- Powerline

Hydrology

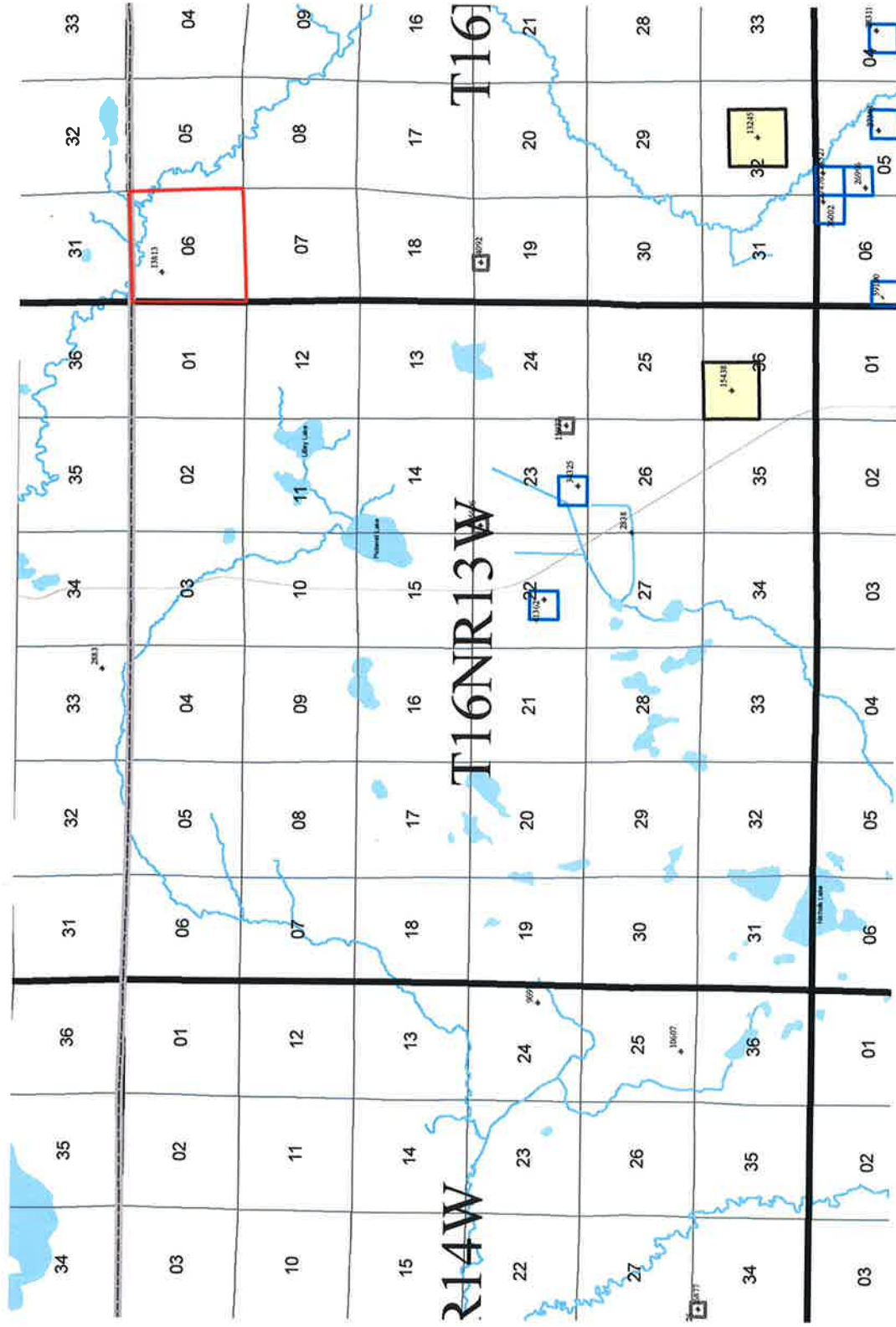
- Drains or Intermittent Stre
- Lakes and Ponds

12N

- 40.00 Acres of Surface Ownership
- 40.00 Acres of Mineral and Surface Ownersh
- 40.00 Acres of Mineral Ownership

ROW DNR has a Right of Way and/or an acq  
easement(s) from private landowner wi







U.S. Fish and Wildlife Service

## National Wetlands Inventory

EOI 010/MIES  
38349 - Wetlands

Dec 10, 2012

### Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

### Riparian

- Herbaceous
- Forested/Shrub

### Status

- Digital
- Scan
- Non-Digital
- No Data



This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

RECORD OF DECISION  
FOR  
LEASING OF FEDERAL OIL AND GAS ESTATE  
ON THE  
U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE'S  
HURON-MANISTEE NATIONAL FORESTS  
NEWAYGO COUNTY, MICHIGAN  
NEPA #DOI-ES-030-2013-0008

BUREAU OF LAND MANAGEMENT-EASTERN STATES



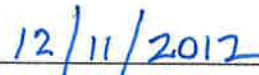
Preparer Signature  
Physical Scientist  
Northeastern States Field Office  
Mineral Resources Division



Date



Reviewer Signature  
Environmental Planner/Coordinator  
Northeastern states Field Office  
Lands and Renewable Resources Division



Date

**DECISION:**

It is my decision to offer for lease the 75% U.S. oil and gas interest in 440 acres of the U.S. Department of Agriculture, Forest Service's Huron-Manistee National Forests (HMNF) in Newaygo County, Michigan. In a letter dated November 16, 2012, the Forest Service authorized leasing the U.S. mineral interest in these lands, which were requested in pre-sale lease offer MIES 38349, designated Expression of Interest (EOI) 010. The Forest Service authorization applies only to the U.S. oil and gas interest under Forest Service surface.

The 440 acres is configured as one lease parcel and will be offered for lease subject to the Bureau of Land Management (BLM) standard lease terms, the Forest Service Standard Lease Stipulations for the HMNF, and the Forest Service Lease Stipulations and Lease Notices as identified in the authorization letter. Attachment 1 to this Record of Decision (ROD) is a copy of the Forest Service's authorization package. The package includes the authorization letter, Title Report Request, Worksheets for Deed Examination that indicates the lands available, lease parcel list, Standard Lease Stipulations for the HMNF, list of Lease Stipulations and Lease Notices for the parcel, a map of the lease parcel showing areas affected by the Lease Stipulations, and copies of the deeds.

With the authorization package, the Forest Service provided a copy of an Additional Information Letter that addresses the Forest Service's review of available information regarding the Antrim, Utica, and Collingwood Formations. The Forest Service concluded that there is no new information or circumstances that would warrant additional environmental analysis prior to authorizing leasing.

It is anticipated that this parcel will be offered on the June 20, 2013, Eastern States Oil and Gas Lease Sale, subject to BLM standard lease terms, the Forest Service Standard Lease Stipulations for the HMNF, and the Forest Service Lease Stipulations and Lease Notices as identified in the authorization letter.

**ALTERNATIVES:**

In 2006, the Forest Service finalized an Environmental Impact Statement (EIS) for revision of the HMNF's 1986 Land and Resource Management Plan (Forest Plan), as amended. The EIS describes a range of alternatives, documents the effects of implementing various management options, provides the basis for determining what changes will be made to the Forest Plan, and evaluates the effects of implementing the revised Forest Plan. The BLM-Eastern States (BLM-ES) was a cooperating agency in preparation of this EIS, which allows the BLM-ES to base the decision to offer a lease on the EIS, as set forth in the National Environmental Policy Act (NEPA) implementing regulations at 40 CFR 5106.3. The final EIS (FEIS) is a companion document to the revised Forest Plan.

The Forest Service used the Forest Plan revision process to accomplish the following in regard to oil and gas resources:

- 1) Establish desired conditions, goals and objectives for oil and gas resources.
- 2) Incorporate regulatory requirements of the Federal Onshore Oil and Gas Leasing Reform

Act (FOOGLRA) of 1987 into the Forest Plan by developing and analyzing a programmatic Reasonably Foreseeable Development Scenario (RFDS) for oil and gas leasing and development for the next 10 to 15 years (prepared in cooperation with the BLM-ES, Northeastern States Field Office).

3) Identify National Forest System lands that may be considered administratively available for leasing and if available, under what conditions, as well as identify those lands that are not available.

The HMNF considered and evaluated three alternatives (A, B, and C) in detail and considered, but dismissed from further consideration, seven alternatives, one of which was "No Mineral Leasing". The Forest Service found "No Mineral Leasing" to be inconsistent with current Forest Plan direction and the agency mineral policy. Alternative A was the "No action" alternative, e.g. the current management allocations, activities, and management direction within the 1986 Forest Plan, as amended, would continue. Alternatives B and C were developed to provide a range of choices for addressing the revision topics and issues. In regard to oil and gas, Alternative B activities were the same as Alternative A, except that the Forest Service conducted an analysis of a RFDS for oil and gas, as required by FOOGLRA of 1987, and identified conditions under which National Forest System lands may be considered for oil and gas leasing. Alternative C was similar to B, with certain exceptions, none of which relate to oil and gas. All alternatives adhered to the concepts of multiple-use and ecosystem management.

The evaluation of alternatives in the FEIS provided an adequate basis for identifying the one alternative that came closest to maximizing net public benefits, while providing adequate environmental protection for surface and subsurface resources. On March 20, 2006, the Regional Forester signed a ROD for the selection of the HMNF's 2006 Forest Plan which entirely replaces the 1986 Forest Plan and its subsequent twenty-five Amendments. The Regional Forester selected Alternative B, as modified, in the FEIS as the 2006 Forest Plan for the HMNF. Alternative B, as modified, falls within the range of alternatives between B and C and reflects a balance based on the extensive public comments received on the Proposed Revised Forest Plan and Draft EIS. Alternative B, as modified, is also the environmentally preferred alternative.

The analysis documented in the FEIS served as the basis for the Forest Service's "availability" decision for leasing that was made in the Forest Service's ROD. Under the 2006 Forest Plan, the HMNF lands are, in general, open to mineral exploration. The only lands statutorily withdrawn from oil and gas leasing are the Nordhouse Dunes Wilderness Area; no lands are administratively unavailable for oil and gas leasing; and all other lands are considered to be available with specified Forest Plan Standards and Guidelines. Exploration, development, production of mineral and energy resources and reclamation activities are considered to be part of the Forest Service's management responsibilities.

There are approximately 480,000 acres of federally owned oil and gas development rights on the HMNF, including the 440 acres addressed in this ROD. The remaining acreage of federal surface has private or state held oil and gas development rights. Under the 2006 Forest Plan, 969,727 acres of federally owned surface would be available for mineral leasing. This includes the 480,000 acres

of federally owned subsurface rights. For each Management Area on the HMNF, the Forest Plan Standards and Guidelines identify restrictions that must be applied to protect resource values should Federal oil and gas leasing occur. These restrictions include no surface occupancy, controlled surface use, and timing limitations.

The Forest-wide Standards and Guidelines state “Department of Agriculture consent for leasing of Federal oil and gas on specific lands will be made following review/validation of the assumptions and analysis in the Forest Plan Environmental Impact Statement, verification that there are no changed conditions, and documentation of compliance with 36 CFR 228.102. The Forests’ leasing recommendation to the Regional Office will include Standards and Guidelines as required lease stipulations/notices.” (2800 Minerals and Geology (2800), I. Minerals-General, B. 1.)

#### **MITIGATION AND MONITORING:**

The BLM will offer a lease subject to the BLM standard lease terms, the Forest Service Standard Lease Stipulations for the HMNF, and Lease Stipulations and Lease Notices provided in the lease authorization letter. The Forest Service developed both Forest-wide and Management Area-specific Standards and Guidelines as a part of the environmentally preferable alternative in the FEIS. The Forest Service reviewed the proposed lease parcel and selected Standards and Guidelines to be applied as Lease Stipulations and Lease Notices based on resource values present on the lease parcel.

The FOOGLRA of 1987 granted the Forest Service authority to approve the surface use program for an Application for Permit to Drill (APD) on a Federal oil and gas lease, while the BLM has authority to approve the drilling program for an APD. Assuming a lease is issued, the Forest Service will evaluate surface use proposals for conformance with the Forest Service Standard Lease Stipulations for the HMNF and Lease Stipulations and Lease Notices. The BLM will evaluate proposed drilling operations for conformance with the BLM lease terms, regulations and standards. As appropriate, the Forest Service and the BLM will document the analysis of impacts for site-specific operations and development of site-specific mitigation measures in a joint NEPA document. The Forest Service and the BLM would jointly administer the operations during the life of the project with inspections by BLM and Forest Service field personnel at various stages to assure that mitigation measures outlined in the lease and the specific operational proposals are being carried out.

If the expected development exceeds the RFDS of the FEIS, and/or could result in significant cumulative effects not discussed in the FEIS, a supplemental EIS may need to be done.

#### **PUBLIC INVOLVEMENT:**

The HMNF implemented a thorough and active public participation campaign throughout the planning process. The process began in the mid 1990’s with the “Need for Change” process. This process temporarily ceased due to a legislative mandate that no additional plan revisions be initiated until a new planning rule was implemented. Input received during the mid-1990’s effort was considered when the plan revision process resumed in 2002. The HMNF utilized a variety of public involvement tools and methods including public meetings, open houses, newsletters, news

releases, and meetings with specific special interest groups when requested.

Public meetings were held in October and November 2002 and again in February 2003. After the Notice of Intent was published in the Federal Register on September 18, 2003, the HMNF held 10 open houses throughout the state. Following the March 18, 2005 Notice of Availability of the Draft EIS and Proposed Revised Forest Plan, the HMNF held a series of eight open house meetings throughout the State. Roughly 350 copies of the Draft EIS and Proposed Revised Forest Plan were distributed in print or CD ROM format. Notification was also provided to roughly 1,450 individuals on the HMNF mailing list indicating these documents could be viewed on the HMNF website. During the 3-month public comment period following the March 18, 2005 release of the draft documents, the HMNF received roughly 1,650 pieces of mail (letters, postcards, e-mails). Comments were from individuals, organizations, and all levels of government, including tribal governments.

#### **RATIONALE:**

Factors on which I have based my decision include:

- 1) The Forest Service authorized oil and gas leasing following completion of a FEIS that fully disclosed to the public the potential impacts to the HMNF of a RFDS under three alternatives. The Forest Service chose to implement the environmentally preferred alternative (Alternative B, as modified).
- 2) Prior to authorizing leasing the lands, the HMNF validated that leasing was adequately analyzed in the FEIS and is consistent with the Forest Plan. The Forest Service provided the BLM an Additional Information Letter that addresses the Forest Service's review of available information regarding the Antrim, Utica, and Collingwood Formations and the conclusion that there is no new information or circumstances that would warrant additional environmental analysis prior to authorizing leasing.
- 3) The HMNF reviewed the requested lands and verified which Forest Plan Standards and Guidelines must be applied as Lease Stipulations and Lease Notices for protection of resource values. The stipulations include no surface occupancy and controlled surface use. These restrictions are specified in the November 16, 2012 authorization package.
- 4) The Federal government has a policy of fostering and encouraging private enterprise in the development of a stable domestic minerals industry and the orderly and economic development of domestic resources (Mining and Minerals Policy Act of 1970). The BLM's 2008 Energy and Mineral Policy reflects this policy in stating "The BLM actively encourages private industry development of public land energy and mineral resources, and promotes practices and technology that least impact natural and human resources."
- 5) The BLM's Energy and Mineral Policy further states "BLM...multiple-use management decisions will recognize that energy and mineral development can occur concurrently or sequentially with other resource uses, providing that appropriate stipulations or conditions of approval are incorporated into authorizations to prevent unnecessary or undue degradation, reduce environmental impacts, and prevent a jeopardy opinion."
- 6) Objectives of the Forest Service's Minerals Program Policy include facilitating the orderly exploration, development, and production of mineral and energy resources within the National Forest System on lands open to these activities and ensuring that exploration,



development, and production of mineral and energy resources are conducted in an environmentally sensitive manner and integrated with the planning and management of other resources using the principles of ecosystem management.

- 7) This decision is consistent with the BLM policy of making mineral resources available for leasing and development while protecting both surface and subsurface resources, and complies with coordination requirements and responsibilities of the FOOGLRA of 1987 and Energy Policy Act of 2005.
- 8) The decision to offer and issue a lease, subject to the BLM standard lease terms, the Forest Service Standard Lease Stipulations for the HMNF, and Lease Stipulations and Lease Notices, as provided in the November 16, 2012 authorization package, will not result in any undue or unnecessary environmental degradation nor require preparation of a statement of adverse energy impacts.

Approving Official:

*Tony J. Henell*

Deputy State Director  
Division of Natural Resources

*Assoc State Dir.*

*6-12-13*

Date



ATTACHMENT 1

Forest Service Authorization Package  
for EOI 010/MIES 38349



File Code: 2820

Date: NOV 16 2012

RECEIVED

NOV 19 2012

BUREAU OF LAND MANAGEMENT  
ES-NSFO

Dr. John Lyon  
Eastern States Director  
Bureau of Land Management  
7450 Boston Blvd.  
Springfield, IL 22153-3121

Dear Dr. Lyon:

The Forest Service authorizes the Bureau of Land Management to offer oil and gas mineral interest contained in Expressions of Interest EOI-010/MIES-38349 on 440 acres of the Huron-Manistee National Forest (Forest) for the next competitive oil and gas lease sale subject to the enclosed stipulations and notifications.

A copy of the Forest March 2006 Record of Decision, Land and Resource Management Plan (LRMP), Final Environmental Impact Statement and accompanying maps are on file in the Eastern Regional Office. This analysis was completed in accordance with 36 C.F.R. 228.102(c) which outlines the requirements for leasing analyses. The "availability" decision under 36 C.F.R. 228.102(d) was made in the Record of Decision. In processing these specific lands for leasing, we verified the leasing of these tracts has been adequately analyzed in the EIS and is consistent with the LRMP in accordance with 36 C.F.R. 228.102(e). This validation process follows direction provided by the Washington Office on "Implementation of USDA Oil and Gas Leasing Regulations" in a letter dated February 24, 2004. No new information or circumstances arose to necessitate additional environmental analysis prior to making our recommendation on consent.


Please see the enclosed document "Additional Information Letter" for a review by the Forest of available information on shale plays in and around the Forest. The letter was sent for a separate EOI, but includes information for the entire Newaygo County where the subject lands are found.

Enclosed are the following documents for the parcels offered:

- Title report, worksheets for deed examination, availability lists with a copy of the pertinent EOIs as provided by the BLM and forwarded to the Forest by the Regional Office.
- Parcel list and recommended lease notice/stipulations.
- Maps showing areas affected by stipulations (the parcel list contains proximate legal descriptions by aliquot parts of the areas affected by stipulations).
- Copies of deeds where parcels are described as part of a tract, lot, or metes and bounds description, or have partial mineral interest.

If you have questions, please contact Jessica Stuntebeck at (414) 297-3342 ([jjstuntebeck@fs.fed.us](mailto:jjstuntebeck@fs.fed.us)) or Caray Grundman at (414) 297-3652 ([cgrundman@fs.fed.us](mailto:cgrundman@fs.fed.us)).

Sincerely,

  
NORA B. RASURE  
Acting Regional Forester

Enclosures (7)

cc: Kemba Anderson, Caray R Grundman, Jessica J Stuntebeck, Jennifer Spencer, Mary Beth Borst



Title Report Request  
USDA Forest Service - Region 9

Serial Number:	EOI-010 MIES-38349
Forest:	Manistee
State:	Michigan
Recd from BLM:	4/13/10
To Forest:	5/3/10

<input checked="" type="checkbox"/>	Oil/Gas
<input type="checkbox"/>	Hardrock

1. Does the description conform to that contained in the deed to the United States? Yes ☐ No ☐  
(If 'no', describe the lands as shown on your records.)  
1a. Is the acreage applied for correct? Yes ☐ No ☐  
(If 'no', indicate correct acreage by legal subdivision)

**SEE WORKSHEET**

2. Specify any mineral reservations contained in the conveyance to the United States, or any prior conveyance, as evidenced by abstract of title. Indicate:  
a. Reservation by grantor (specify):  
b. Minerals outstanding in third parties (specify):

**SEE WORKSHEET**

3. If the land, has been conveyed by the United States, specify any provision in conveyance reserving minerals to the United States?

**SEE WORKSHEET**

4. Under what authority was land acquired, or is it being administered?  
☐ Weeks Law, as amended  
☐ Other, please specify:

**SEE WORKSHEET**

5. Give the name, address and accounting location of your office to receive credit for the deposit of collections:

Director, Financial Management  
USDA Forest Service  
626 E. Wisconsin Avenue  
Milwaukee, WI 53202

6. Is exercise of granted rights consistent with the purposes for which the land was acquired or is being administered? Yes ☐ No ☐  
If 'yes', stipulate necessary terms and conditions. (If 'none', write 'none').

**SEE FOREST SERVICE STIPULATIONS**

7. Give the fund symbol to receive collections: 125008 218 (Acquired Lands)

**FOR RO USE ONLY**

\_\_\_\_\_  
Regional Forester

\_\_\_\_\_  
Date

Worksheet for Deed Examination (corrected 1/3/11)

Name:	Meridian Energy Corp.
ES No.:	EOI-010

Land Description	Acres	Case No. And Grantor	Date of Deed Or Decree	Mineral Reservation
<b>T.16N., R.13W. (Newaygo County)</b> Sec. 17 N2SW, SWSW, NWSE, N2NE, SWNE, NW	<u>440.00</u>	<b>Lands Available</b>  Union Bank of Michigan #1613- 11	10/30/39	75% USA mineral interest - 25% mineral interest outstanding in third party
<b>Total Acres</b>	<b>440.00</b>			

# United States Department of the Interior



## Bureau of Land Management-Eastern States

Milwaukee Field Office

626 E. Wisconsin Avenue, Suite 200

Milwaukee, Wisconsin 53202-4617



IN REPLY REFER TO:  
3120 (03410)  
Lease Offer MIES 38349 (EOI-010)

April 13, 2010

Mr. Paul Stockinger  
Natural Resources Team  
USDA Forest Service - Region 9  
626 East Wisconsin Avenue  
Milwaukee, Wisconsin 53202

Dear Mr. Stockinger:

The Bureau of Land Management - Eastern States has received a Lease Offer for oil and gas leasing for approximately 440 acres of the Huron-Manistee National Forest, Newaygo County, Michigan. Enclosed is a copy of lease offer MIES 38349 requested by industry to be offered on a lease sale at the earliest possible date. Should the Forest Service decide to consent to leasing of the subject land, please provide our office with the original listing of the land for which consent is given, a title report for the affected land, and any lease stipulations that are needed to mitigate impacts to surface resources. Please forward an entire copy to our State Office in Springfield, Virginia.

If you have any questions, please contact Dave LaChance in our Division of Mineral Resources at (414) 297-4145 or [dave\\_lachance@blm.gov](mailto:dave_lachance@blm.gov).

Sincerely,

  
Mark Storzer  
Field Manager

Enclosure

cc: ES-934

Form 3100-11\*  
(March 1984)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

EASTERN STATE  
FORM APPROVED  
OMB No. 1004-0008  
Expires January 31, 1986  
Serial No. 038349

OFFER TO LEASE AND LEASE FOR OIL AND GAS

The undersigned (reverse) offers to lease all or any of the lands in item 2 that are available for lease pursuant to the Mineral Leasing Act of 1920 (30 U.S.C. 181 et seq.), the Mineral Leasing Act for Acquired Lands (30 U.S.C. 351-359), the Attorney General's Opinion of April 2, 1941 (40 OP. Atty. Gen. 41), or the

Read Instructions Before Completing

1. Name MERIDIAN ENERGY CORPORATION

Street 2500 KERRY STREET

City, State, Zip Code LANSING, MICHIGAN 48912

BUREAU OF LAND MANAGEMENT  
EASTERN STATE

2. This offer/lease is for: (Check Only One)

☐ PUBLIC DOMAIN LANDS

☒ ACQUIRED LANDS (percent U.S. interest 75%)

Surface managing agency if other than BLM: Department of Interior '88 MAN U.S.W. Project 12-17 Manistee National Forests

Legal description of land requested:

T. 16N

R. 13W

Meridian Michigan

PT State: Michigan  
ALEXANDER

County Newaygo

Section 17: N/2 NE/4, SW/4 NE/4, NW/4  
N/2 SW/4, SW/4 SW/4, NW/4 SE/4

Containing 440.00 acres more or less formerly ES-30342

Amount remitted: Filing fee \$ 75.00

Rental fee \$ 660.00

Total acres applied for 440.00

Total \$ 735.00

DO NOT WRITE BELOW THIS LINE

3. Land included in lease:

T.

R.

Meridian

State

County

Total acres in lease \_\_\_\_\_

Rental retained \$ \_\_\_\_\_

In accordance with the above offer, or the previously submitted simultaneous oil and gas lease application or competitive bid, this lease is issued granting the exclusive right to drill for, mine, extract, remove and dispose of all the oil and gas (except helium) in the lands described in item 3 together with the right to build and maintain necessary improvements thereupon for the term indicated below, subject to renewal or extension in accordance with the appropriate leasing authority. Rights granted are subject to applicable laws, the terms, conditions, and attached stipulations of this lease, the Secretary of the Interior's regulations and formal orders in effect as of lease issuance, and to regulations and formal orders hereafter promulgated when not inconsistent with lease rights granted or specific provisions of this lease.

Type and primary term of lease:

THE UNITED STATES OF AMERICA

☐ Simultaneous noncompetitive lease (ten years)

by \_\_\_\_\_  
(Signing Officer)

☐ Regular noncompetitive lease (ten years)

☐ Competitive lease (five years)

\_\_\_\_\_  
(Title) (Date)

☐ Other \_\_\_\_\_

EFFECTIVE DATE OF LEASE \_\_\_\_\_

**Manistee National Forest  
Corrected Parcel List (1/3/11)**

	<b>Acres</b>
<b>Total Acres Available</b>	<b>440.00</b>
<b>Acquired Lands</b>	<b>440.00</b>
<b>125008 218</b>	

**ACQUIRED – Manistee NF**

EOI-010  
MIES-38349

Michigan, Newaygo County, Manistee NF  
T16N, R13W, Michigan Meridian  
Sec. 17, N2SW, SWSW, NWSE, N2NE, SWNE, NW  
Total Acres: 440.00  
Notice: 75% USA mineral interest on entire parcel – 25%  
outstanding in third party  
Subject to:  
Forest Service Standard Lease Stipulations  
Lease Notices 1, 2, 3, 6  
Lease Stipulation 3 applies to all lands except E2SENWSE  
Lease Stipulation 4 applies to E2SENWSE  
Lease Stipulation 22 applies to E2SENWSE

USDA – FOREST SERVICE  
STANDARD STIPULATIONS - LEASE  
(FSM 2820)

Serial No.: MIES 38349  
(EOI-010)

Lessee: \_\_\_\_\_  
National Forest: Huron-Manistee  
NF

The lessee is notified and agrees:

All work and any operations authorized under this permit shall be done according to an approved operating plan on file with the Forest Supervisor at 1755 S. Mitchell St. Cadillac, MI 49601. Plans generally require a minimum of 45 days for Forest Service review. Bureau of Land Management must also review and also approve.

Operating plan will contain information the Forest Officer determines reasonable for assessment of (1) public safety, (2) environmental damage, and (3) protection for surface resources. Content of such plans will vary according to location and type of activity and may contain:

1. Steps taken to provide public safety.
2. Location and extent of areas to be occupied during operations.
3. Operation methods including size and type of equipment.
4. Capacity, character, standards of construction and size of all structures and facilities to be built.
5. Location and size of areas where vegetation will be destroyed or soil lay bare.
6. Steps taken to prevent and control soil erosion.
7. Steps taken to prevent water pollution.
8. Character, amount, and time of use of explosives or fire, including safety precautions during their use.
9. Program proposed for rehabilitation and revegetation of disturbed land.

Copies of all permits obtained from State or Federal agencies pertaining to work might be required. Archeological studies, if required, will accompany plan.

The Forest Supervisor or his/her designated agent has authority to temporarily suspend or modify operations in whole or in part due to emergency forest conditions such as high fire danger or other unsafe situations.

The lessee must keep the Authorized Officer informed about progress of operations to the extent reasonably necessary for assuring public safety. This is especially important with geophysical inventory and testing activities because of their mobile nature. The Authorized Officer will alert the lessee to circumstances, which may affect safe and efficient conduct of work activities.

Terms of this lease are considered violated if not done according to these stipulations.

See Special Stipulations & Notifications

\_\_\_\_\_  
Lessee

R9-2800-6a (3/83)



***Huron-Manistee National Forest***  
***EOI-010***

**Lease Notices**

**Lease Notice #1)** Operations under this lease will be consistent with the Standards and Guidelines found in the Huron-Manistee National Forests Land and Resource Management Plan (Plan) and hereby incorporated into this lease in their entirety.

**Lease Notice #2)** Surface disturbance will be limited to that necessary for reasonable, safe and prudent extraction of the oil and gas. Measures will be implemented to minimize erosion and sedimentation. Road and stream crossings will be planned to eliminate stream crossings whenever practical.

**Lease Notice #3)** Processing of proposed surface use plans of operation on National Forest System lands includes site-specific analysis to determine effects to threatened, endangered, or sensitive species. This analysis may require surveys for certain plants and/or animals. Depending upon the species of concern, it may be necessary to survey through spring, summer, and fall. The extent of required surveys could delay permit issuance. Operators are encouraged to submit proposals as soon as possible to facilitate the scheduling of necessary survey work.

**Lease Notice #6)** Portions of this lease parcel have had occurrences of certain threatened, endangered, or sensitive species or communities. At the time a drilling permit application or other request for surface use is filed, a site-specific review will be done to determine potential effects to these species. Depending upon the findings of the site-specific review, additional operating constraints, such as seasonal restrictions or re-location of the proposed wellsite, may be necessary to mitigate effects to threatened, endangered, or sensitive species or communities.

**Lease Stipulations**

**Stipulation #3)** All or portions of this lease parcel are located in an area managed as Old Growth. In accordance with the Huron-Manistee National Forest Plan, no surface occupancy is permitted on this parcel due to the lack of existing reasonable access.

**Stipulation #4)** All or portions of this lease parcel are located in an area managed as Old Growth. Surface disturbing activities will take place outside of old growth where there are reasonable alternative locations. Due to the presence of existing reasonable access via roads/trails, surface occupancy is permitted, however, is limited to existing roads and trails.

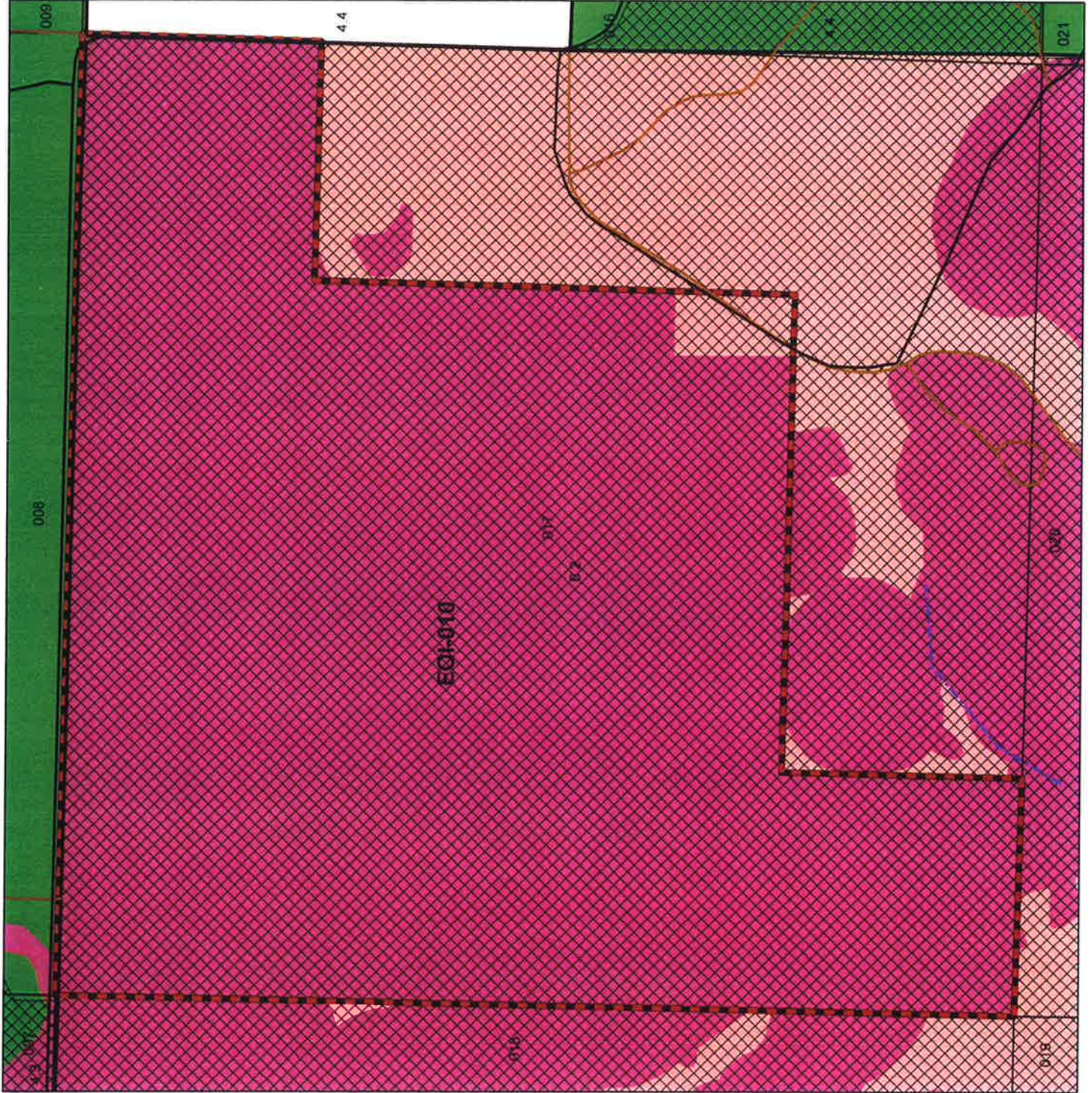
**Stipulation #22)** This parcel is located in an area managed as a semi-primitive motorized area. The Huron-Manistee National Forest Plan limits surface location density in these areas. The maximum surface development density in this area is 1 surface location per 160 acres. Production facilities will be located outside the area when practical and needed pumps will be run by electric motors or equipped to minimize noise.



# EOI-010

Manistee N.F.  
Newaygo County

- Other Roads
- USFS Roads
- North Country Trail
- Management Areas
- EOI-010
- Forest Boundary
- Oldgrowth
- Not Available
- No Surface Occupancy
- KBB / Wildlife Emphasis
- 1 well per 160 acres
- 1 well per 640 acres
- USFS Ownership





The remaining lands in this particular abstract passed of record from said liquidating trustees of the A. E. Carter Son Company to Harry D. Jewell and Euphemia S. Jewell, his wife, by the deed reported at item 27.

At item 28 Edith C. Eligh acquired an undivided  $1/3$  interest in all of the concerned lands by deed from Harry D. Jewell and wife.

At item 29 Harry D. Jewell and wife conveyed to Fred R. Dean and Sadie C. Dean, his wife, an undivided  $1/3$  interest in the concerned lands without exception or reservation.

The Fred R. Dean interest in said lands passed to Edith C. Eligh at item 35 with a reservation of all minerals, which would amount to a reservation of an undivided  $1/3$  interest in said minerals. It is, however, reported at item 36 that on January 7, 1929, certain oil, gas and mineral rights in said lands were owned by Mabel L. Sippy, but no deed for said interest appears of record.

At item 33 Edith C. Eligh acquired the remaining undivided  $1/3$  Harry D. Jewell interest with a reservation to the Grantors in said deed of an undivided  $1/3$  interest in all minerals, which would be an undivided  $1/3$  of an undivided  $1/3$  interest therein. Said mineral interest was subsequently conveyed to Edith C. Eligh at item 40.

At item 31 the said Edith C. Eligh conveyed to Harry D. Jewell and wife an undivided  $1/4$  interest in the minerals.

At item 42 all of the concerned lands in this particular abstract were conveyed by Edith C. Eligh to Union Bank of Michigan, excepting said outstanding mineral rights.

At page 75 of Volume 7 is reported the recent reorganization of a petroleum deed from Harry McDonald, widower, to Grand Rapids Trust Company as liquidating trustees of the A. E. Carter Son Company covering the NW  $1/4$  of Section 7, T. 16 N., R. 15 W. (see item 39). Said title passed from said liquidating trustee to Harry D. Jewell and wife by the warranty deed of May 13, 1929, reported at item 37.

Abstract 739

Township 16 North, Range 15 West.

Section 17: T. 16 N., R. 15 W.

Exhibit "C-1" (Volume V) and the last paragraph of the certificate at page 19 of Volume V reports the due patenting of all of the immediately concerned land by the United States to the State of Michigan for Flint & Pere Marquette Railway Company, and item 11 reports the due conveyance of the concerned lands by the trustees for said railroad company on August 3, 1882, to Attilio B. Curtler and Frank Flier.

Said land thereafter passed through items 12 and 13 to The Denaher and Kelendy Company, and exhibit "m" (Volume V) reports the nonexistence of any railroad over and across Section 17, Township 16 North, Range 13 West, hence, the easement granted at item 24 to the Flint & Pere Marquette Railroad Company is of no effect.

The A. B. Todd Company, Limited, acquired title to the concerned land at item 25, subject to said nonexistent right-of-way easement for railroad, and at item 26 conveyed the said land to A. B. Todd Company.

At item 29 and 30 Harry D. Jewell and Edith A. Jewell, his wife, acquired an undivided 1/2 interest therein, and Edith C. Sligh acquired the remaining 1/2 interest.

Union Bank of Michigan acquired the Harry D. Jewell and Edith A. Jewell undivided 1/2 interest through foreclosure proceedings reported at item 33, et seq, as a result of the foreclosure of the mortgage reported at item 31 and assigned at items 32 and 33, and at item 32 the Circuit Court Commissioner executed to Union Bank of Michigan a deed of conveyance of said undivided 1/2 interest without reservation or exception.

At item 44 said undivided 1/2 interest in said land was conveyed by said Union Bank of Michigan to Edith C. Sligh, previous to which Edith C. Sligh had conveyed to Harry D. Jewell and wife an undivided 1/6 of an undivided 1/2 interest therein, the said Edith C. Sligh not having acquired title to the remaining undivided 1/2 interest until the year 1938 (see item 44).

At item 45 Harry D. Jewell and his wife conveyed to Edith C. Sligh an undivided 1/6 interest of their undivided 1/2 interest in said land and other minerals, being an undivided 1/72 interest, and at item 46 said Edith C. Sligh conveyed to Harry D. Jewell and wife an undivided 1/4 interest in all minerals upon said lands.

At item 47 Edith C. Sligh conveyed the concerned lands, subject to said outstanding mineral interest, to Union Bank of Michigan.

Abstract "C"

Township 16 North, Range 13 West

Section 17: SE<sup>1</sup>SW<sup>1</sup>, E<sup>2</sup>SE<sup>1</sup>

The chain of title involving the lands concerned with this particular abstract is practically identical with the chain concerned with the lands in Abstract "B", including the easement deed to Flint & Pere Marquette Railroad Company at item 24, and reference is made to exhibit "B" (Volume V) certifying to the nonexistence of any railroad upon the concerned lands.

The foreclosure of the Harry D. Jewell and Euphemia S. Jewell undivided 1/2 interest, resulting in the deed of said interest to Union Bank of Michigan at item 42, is concerned herewith.

Abstract "D"

Township 15 North, Range 13 West

Section 18: Entire Section

Exhibit "C", et seq, reports the due patenting of all of the lands in Section 18, Township 16 North, Range 13 West, by United States of America to various individuals and to the State of Michigan.

The W<sup>1</sup>SW<sup>1</sup> of Section 18, T 16 N, R 13 W, referred to at item 4 was duly patented to the State of Michigan, and page 18 of Volume V reports the due patenting of said description by the State of Michigan to John A. Wheeler. Through subsequent conveyances reported at items 4, 5, 12, 13, 14, 15, 16, 17 and 18, said description comes down of record to Antoine P. Carlier.

Item 19 reports the due patenting of the E<sup>1</sup>SW<sup>1</sup> and NE<sup>1</sup>SW<sup>1</sup> of Section 18 by the United States to William Houghtaling, and at item 20 said lands were conveyed to Silas P. Hovey.

Item 21 reports the issuance of United States Patent to Silas P. Hovey covering the SE<sup>1</sup>SW<sup>1</sup> of Section 18, and item 22 reports the due patenting of the W<sup>1</sup>SW<sup>1</sup> and SE<sup>1</sup>NE<sup>1</sup> of Section 18 to William C. Hinen, and at item 23 conveyed said descriptions to Silas P. Hovey and James H. Kidd, with Silas P. Hovey acquiring the James H. Kidd interest in the W<sup>1</sup>SW<sup>1</sup> and SE<sup>1</sup>NE<sup>1</sup> of Section 18 at item 24.

Item 26 reports that Silas P. Hovey acquired the Daniel B. Hewitt interest in the NE<sup>1</sup>SW<sup>1</sup> of Section 18, which was patented to Daniel B. Hewitt by United States of America at item 25.



United States  
Department of  
Agriculture

Forest  
Service

Huron-Manistee National Forests  
Supervisor's Office  
1755 South Mitchell Street  
Cadillac, MI 49601-8533

231-775-2421 (Voice)  
231-775-5551 (Fax)  
231-775-3183 (TTY)

File Code: 2820

Date: December 22, 2011

Route To:

Subject: EOI-72, EOI-861 - Additional Information

To: Regional Forester, R-9

By letters dated September 28 and October 31, 2011, we transmitted the Forests' recommendation on leasing federal oil and gas resources under National Forest System lands identified in Expressions of Interest (EOIs) 861 and 72, respectively. All of this acreage is in Newaygo County, on the southern part of the Manistee National Forest. Both letters stated that the recommendation on "consent" was based on the existing environmental analysis documented in the Final Environmental Impact Statement (FEIS) for the Forests' Land and Resource Management Plan (LRMP) and no new information or circumstances have arisen that would necessitate additional environmental analysis prior to making this recommendation.

Recent interest in possible Marcellus shale gas exploration and hydraulic fracturing in states such as Pennsylvania, West Virginia, and Ohio prompted us to consider whether or not such development would be likely for the Huron-Manistee National Forests (HMNF) or more specifically, for the areas nominated under EOIs 72 and 861. In Michigan, since the 1950s, more than 12,000 wells have been hydraulically fractured. Hydraulic fracturing has been used extensively for many years in roughly 9,900 Antrim shale wells in Michigan, which produce natural gas at depths of 500 to 2000 feet. According to the Michigan Department of Environmental Quality, there is no indication that traditional hydraulic fracturing techniques used in the state have ever caused damage to ground water or other resources.

There is a relatively new play in Michigan known as the Utica/Collingwood shale. Depths to the Utica/Collingwood range from approximately 4,100 to 9,000 feet. Hydraulic fracturing of these horizontally completed wells requires significantly larger volumes of fluids. To date, four Utica/Collingwood wells have been horizontally drilled and fractured – one in Missaukee County, one in Cheboygan County, and two in Kalkaska County (these two are currently being flow tested or fractured) (*Michigan Oil and Gas News*, November 25, 2011). It is unknown at this time as to whether the Utica/Collingwood wells are considered a viable producing formation.

A review of available information on the Antrim, Utica, and Collingwood formations indicates the Manistee National Forest lies outside the mapped known geological extent of these formations and, therefore, would probably not see drilling in these formations. The same review indicates the Huron National Forest lies within the mapped geological extent of the Utica and Collingwood formations, including the portion that has been identified as prospective for natural gas. The far northeastern portion of the Huron National Forest may be underlain by a potentially prospective portion of the Antrim Shale. In 2005, the Forest processed four drilling applications for Antrim Shale on the Huron Forest in Alcona County. The company decided not to pursue these wells. To date, Antrim Shale development has not occurred on the HMNF. It is not





possible at this time to definitively identify the potential or timeframe for development of these formations on the Huron National Forest. Although, assuming the development of these formations proves economic, the potential for such development on the Huron National Forest appears better than even within the next five years.

Appendix D of the Forest Land and Resource Management Plan (LRMP) includes the Reasonably Foreseeable Development Scenario (RFDS) for oil and gas leasing/development. This RFDS projected a total of 88 wells would be drilled on National Forest System lands over the next 10-15 years (following plan approval in 2006) with a total initial cumulative disturbance of 384 acres. This projection equates to approximately 6-9 wells per year. Monitoring data subsequent to 2006 indicates that there have been a total of nine wells drilled over the past five+ years, which equates to almost two wells per year (10% of total wells projected). Total initial disturbance for these nine wells is approximately 27.25 acres (7% of total projected disturbance over the life of the plan). Actual oil and gas development is well below projections documented in the RFDS and analyzed in the LRMP/EIS.

Based on a review of existing information relative to the Antrim, Collingwood, and Utica formations, we have verified that the leasing of the parcels included in EOI-72 and EOI-861 has been adequately analyzed in the LRMP Final Environmental Impact Statement and is consistent with the LRMP in accordance with 36 CFR 228.102(e). No new information or circumstances have arisen that would necessitate additional environmental analysis prior to making our recommendation on consent.

If you have any questions or require additional information, please contact Terry Saarela at (231)775-5023, ext. 1-8733 or [tisaarela@fs.fed.us](mailto:tisaarela@fs.fed.us).

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